

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference WO 21.1110	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, Item 5 below.	
International application No. PCT/EP 03/10005	International filing date (day/month/year) 08/09/2003	(Earliest) Priority Date (day/month/year) 10/09/2002
Applicant SERVICES PETROLIERS SCHLUMBERGER		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/10005

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B47/10 E21B17/10 E21B47/01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2 294 074 A (WESTERN ATLAS INT INC) 17 April 1996 (1996-04-17) cited in the application page 7, line 31 -page 11, line 17; figures 1,2,6	1-3, 9-11,13
Y	---	8
Y	FR 1 549 531 A (SCHLUMBERGER PROSPECTION) 13 December 1968 (1968-12-13) claim 1; figures 3,4	8
A	US 5 661 237 A (DUSSAN V ELIZABETH B ET AL) 26 August 1997 (1997-08-26) cited in the application column 7, line 5 - line 16; figure 2 --- -/--	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

20 February 2004

Date of mailing of the international search report

27/02/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Dantine, P

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/10005

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 765 640 A (PAPE GARY J ET AL) 16 June 1998 (1998-06-16) column 2, line 4 - line 7; figures 3-5 ---	1
A	FR 2 267 442 A (SCHLUMBERGER PROSPECTION) 7 November 1975 (1975-11-07) page 2, line 14 - line 17; figures 2,4 ---	1
A	FR 2 797 295 A (SCHLUMBERGER SERVICES PETROL) 9 February 2001 (2001-02-09) page 8, line 3 -page 9, line 16; figures 1,4 ---	1
A	US 5 242 020 A (COBERN MARTIN E) 7 September 1993 (1993-09-07) column 5, line 1 - line 22; figure 3 -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/10005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
GB 2294074	A	17-04-1996	CA 2160176 A1	15-04-1996
			NO 954001 A	15-04-1996
			US 5574263 A	12-11-1996
FR 1549531	A	13-12-1968	DE 1803736 A1	26-06-1969
			ES 359793 A1	16-06-1970
			GB 1242252 A	11-08-1971
			NL 6814910 A ,B	06-05-1969
			NL 7803560 A	31-07-1978
			NO 126542 B	19-02-1973
			OA 2917 A	15-12-1970
			SU 480222 A3	05-08-1975
			US 3685158 A	22-08-1972
US 5661237	A	26-08-1997	FR 2732068 A1	27-09-1996
			CA 2172440 A1	24-09-1996
			DE 69609220 D1	17-08-2000
			DE 69609220 T2	22-03-2001
			DK 733780 T3	13-11-2000
			EP 0733780 A1	25-09-1996
			NO 961191 A	24-09-1996
			ZA 9602328 A	24-10-1996
US 5765640	A	16-06-1998	AU 707448 B2	08-07-1999
			AU 1262097 A	11-09-1997
			CA 2196933 A1	07-09-1997
			GB 2310871 A ,B	10-09-1997
			NO 971039 A	08-09-1997
FR 2267442	A	07-11-1975	FR 2267442 A1	07-11-1975
			AR 203419 A1	08-09-1975
			CA 1027860 A1	14-03-1978
			GB 1501683 A	22-02-1978
			JP 1143579 C	26-04-1983
			JP 50144462 A	20-11-1975
			JP 57033524 B	17-07-1982
			US 3915229 A	28-10-1975
			US 4006530 A	08-02-1977
FR 2797295	A	09-02-2001	FR 2797295 A1	09-02-2001
			AU 6567500 A	05-03-2001
			BR 0012721 A	09-04-2002
			CN 1361847 T	31-07-2002
			EA 3623 B1	28-08-2003
			WO 0111190 A1	15-02-2001
			GB 2368129 A ,B	24-04-2002
			NO 20020544 A	04-02-2002
US 5242020	A	07-09-1993	GB 2251014 A	24-06-1992